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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,504	03/28/2002	Garry Royston Fish	10541-824	5011
29074	7590	11/17/2003	EXAMINER	
BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60611			FLANIGAN, ALLEN J	

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 11/17/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/009,504	FISH, GARRY ROYSTON
Examiner	Art Unit	
Alien J. Flanigan	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 September 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-13 and 15-25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

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| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

Claims 1-5, 9, 12, 12, 15-17, 21, and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kiser et al.

Please see the comments made in regard to the above rejection in the previous Office action. As noted therein, the drawings and expressly discussed ranges disclosed in Kiser et al. appear to show values that anticipate the claimed ranges. For example, Fig. 7 shows a tube with a width of about 3.75 units, with alternating rows of 3 and 4 dimples of diameter 0.25 units. This works out to an area for the two rows spaced at least 1 inch apart longitudinally of about 4.5 percent of the tube wall area ($7\pi R^2 / 2 * 3.75$). Clearly, this one example reads on at least claims 1-3 and 5, if not claim 4. The implicit suggestion in Kiser et al. that longitudinal spacings differing from the "preferred" value of 1 inch would be suitable, say, for pressures greater than the 10-40 PSI value given in the illustrative embodiment would clearly suggest greater spacings (and thus reduced amount of dimple area as a percentage of the tube wall area) for fluids at greater pressure, and closer spacings at lower pressures, in order to avoid excessive pressure drop, as Kiser et al. explicitly teach.

Claims 6-8, 10, 11, 18-20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Kiser et al. and Rhodes.

Please see the comments made in regard to the above rejection in the previous Office action.

Applicant's arguments filed 9/17/03 have been fully considered but they are not persuasive.

Contrary to applicant's assertions, as pointed out above, Kiser et al. do indeed teach a tube having dimensions that fall within the scope of the anticipated claims, such as claim 1, for example. Applicant should note that disclosure for the purposes of anticipation can be by drawings as well as words¹. The remaining rejections have not been specifically traversed beyond pointing out the alleged deficiencies of the anticipation rejection based on Kiser et al., so no further comment appears necessary.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

¹ See *In re Mraz*, 173 U.S.P.Q. 25.

no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (703) 308-1015. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Scherbel can be reached on (703) 308-1272. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7764.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.



Allen J. Flanigan
Primary Examiner
Art Unit 3753

AJF